KENWOOD

DRV-W440

Dashboard Camera

INSTRUCTION MANUAL

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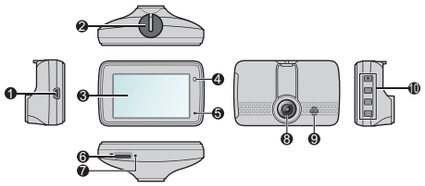
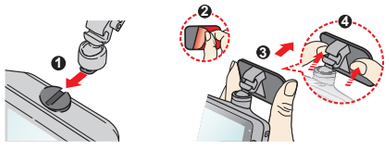
Getting to Know Your Device



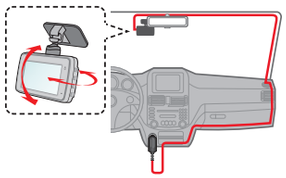
1. Mini-USB connector
2. Device mount socket
3. LCD screen
4. System indicator
5. Microphone
6. Memory card slot
7. Shutdown button
8. Camera lens
9. Speaker
10. Power button ( ) / Function keys

Using Your Device in a Vehicle

1. Make sure that your car is parked on level ground. Use a commercially available cleaning cloth to wipe off any dirt or grease from the location you are mounting the device.
   Follow the instructions below to securely mount your device in a vehicle.



2. Adjust the lens angle. When adjusting the angle of mounting, make sure that the camera's view is parallel with the level ground and the ground/sky ratio is close to 6/4.
3. Connect the cables. Route the cables through the top ceiling and the A-pillar so that it does not interfere with driving. Make sure that the cable installation does not interfere with the vehicle's airbags or other safety features.

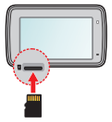


Using a Memory Card

You must insert a memory card before you can start recording. You should use separate MicroSD cards for recording and for regular data storage.

Hold the card (MicroSD) by the edges and gently insert it into the slot as shown in the illustration.

To remove a card, gently push the top edge of the card inwards to release it and pull it out of the slot.



Formatting a Card

To format a memory card (all data will be erased), press > **Format**.

Note:

- DO NOT apply pressure to the centre of the memory card.
- The manufacturer does not guarantee the product's compatibility with memory cards from all manufacturers.
- Before you start recording, please format the memory card to avoid malfunction caused by files not created by the device.
- Turn the device off before removing the memory card.

Turning the Device On

Complete the installation according to the instructions in the "Using your device in a vehicle" section. Once the vehicle engine is started, the device automatically turns on. The System indicator glows in green when the device is powered.

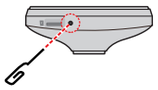
Power Button

Press and hold the Power button for 2 seconds to manually turn the device on and off.

Shutting down the Device

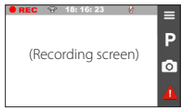
Occasionally, you may need to perform a hardware reset when the device stops responding or if it appears to be "frozen" or unresponsive. To shut down the device, press and hold the Power button until the system powers off.

If the system does not shut down by keeping the Power button pressed, you can force it to shut down by inserting a small rod (such as a straightened paperclip) into the Shutdown button on the device.

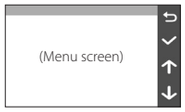


Function Keys

The device provides 4 function keys to control the corresponding icons displayed on the LCD screen. The keys' functions may vary on different screens.



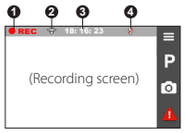
- Opens the Menu screen.
- Enters Parking mode.
- Takes a photo.
- Manually starts an event recording.



- Acts as the BACK button.
- Acts as the ENTER button.
- Moves to the previous option.
- Moves to the next option.

System Icons

Various system icons on the status bar at the top of the screen provide the status information of your device. The displayed icons will vary depending on your device model and state.



1. Recording indicator
2. Wireless LAN status
3. Time display
4. Microphone status

Setting the Date and Time

To make sure that the date and time of your recordings are correct, check the settings before you begin recording.

1. Press to access the Settings Menu.
2. Select **System** > **Date/Time**.
3. Use / to adjust the value of the selected field; press and repeat the step until all fields have been changed.
4. When done, press .

Recording in Driving Mode

Continuous Recording

By default, the system will automatically begin continuous recording shortly after start-up. The System indicator flashes in green and amber alternately while the recording is in progress.

The recording may be divided into several video clips; recording will not stop between video clips. When your memory card fills up with continuous recordings, it will automatically record over the oldest existing files in this category.

When continuous recording is in progress, you can manually stop recording by pressing . Press to return to the recording screen; the system will start continuous recording automatically.

The continuous recordings can be found in the "Video" category for file playback.

Event Recording

By default, if an event happens such as a sudden impact, high speed driving, an aggressive turn or an accidental crash during continuous recording, the G sensor will prompt the device to start recording the event.

Note: You can change the sensitivity level of the G sensor by selecting > **Video Recording** > **G-Sensor Sensitivity**.

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If you want to manually start an event recording while continuous recording is in progress, press the Event button ( ).

The event recording will save moments before and moments after the event. When your memory card fills up with event recordings, it will record over the oldest existing files in this category.

The event recordings can be found in the "Event" category for file playback.

Parking Mode

Your device supports the parking recording function. You must use an additional hard wire kit (sold separately) to record the video during the Parking mode.

The Parking mode function is disabled by default. Before enabling the Parking mode, please check the memory storage allocation of your device. Select > **System** > **Storage Allocation** to set a proper allocation for parking recording. Changing the allocation will erase the memory card, so save any videos or photos to your computer first.

You can enable the function by selecting > **Parking Mode** > **Detection** > **On**. (The icon will appear on the screen.) When the Parking mode detection is enabled, the system will enter the Parking mode when the car stops moving for about 5 minutes.

In the Parking mode, parking recordings could be triggered only when movements or vibrations are detected. The parking recording will save moments before and moments after the event. When your memory card fills up with parking recordings, it will record over the oldest existing files in this category.

Note:

- You cad press to manually enter the Parking mode while continuous recording is in progress.
- The parking recording is triggered by the G sensor and motion detection of the device. You can change the configuration by selecting > **Parking mode** > **Motion Detection** and **G-Sensor Sensitivity**.

To exit the Parking mode and resume continuous recording, press .

If movements are detected and recorded during the Parking mode, you will be asked to playback the video when you exit the Parking mode.

The parking recordings can be found in the "Parking" category for file playback.

Camera Mode

The device allows you to take a photo. Do one of the following:

- If the recording is in progress, press to take a photo.
- Press > **Camera** > .

The photos can be found in the "Photo" category for file playback.

Playback Mode

To select a video or photo for playback:

1. Press > **File Playback**.
2. Select the desired type.
3. Select the desired file from the list and then press to start playback.
4. During playback, you can:
   - While playing videos
     - Press / to play the previous/next video; press and hold the buttons to fast rewind/forward the video.
     - Press to return to the list.
     - Press to display the pop-up menu to select:

       Play / **Pause**: Starts or pauses the playback.

       Move to Event: Moves the file to the "Event" category.

       Transfer to phone: Uploads the selected video to your smartphone.

       Delete: Deletes the file.
   - While viewing photos
     - Press / to display the previous/next photo.
     - Press to return to the list.
     - Press to display the pop-up menu to select:

       Transfer to phone: Uploads the selected photo to your smartphone.

       Delete: Deletes the file.

Getting Connected

KENWOOD DRV Link

The KENWOOD DRV Link app is an integrated application that allows you to view, share and back up the videos recorded on a dashboard camera via wireless LAN. Search for "KENWOOD DRV Link" in Apple App Store or in Google Play Store to download the app for free.

Note:

- The KENWOOD DRV Link app is compatible with iOS 9.0 (and above) and Android 5.0 (and above) devices. JVCKENWOOD does not guarantee the product's compatibility with smartphones from all manufacturers.
- App Store is a service mark of Apple Inc., registered in the U.S. and other countries.

  IOS is a trademark or registered trademark of Cisco in the U.S. and other countries and is used under license.

  Android and Google Play are trademarks of Google LLC.

Setting up a Wireless Connection

On your device, select > **Wireless LAN** > **On** to enable the wireless LAN mode. Once enabled, the wireless LAN setting screen displays the SSID and password of the device.

On your smartphone, follow the steps to set up the wireless connection.

1. Enable the wireless LAN function on the smartphone.
2. Open the KENWOOD DRV Link app and follow the on-screen instructions to set up the connection.

   Open the wireless LAN setting of the smartphone to display the detected devices. From the list, select the device you want to connect to and then enter the password.

   The next time you use your smartphone to connect to the device, you will not be prompted to enter the password again unless you reset your phone to the factory default settings.

Note: The instructions about operating the smartphone are for reference only. The actual setting options and methods may vary depending on your phone type/model and the app version.

You can check the wireless connection status by the icon on the device.

	The device is connected to the smartphone and paired with the KENWOOD DRV Link app.
	The device is not connected to the smartphone.
	The device is connected to the smartphone but not paired with the KENWOOD DRV Link app yet.

Once connected, the event recordings will be automatically transferred to your smartphone via the KENWOOD DRV Link app.

System Settings

Note: Not all setting items and options are available for all models.

To customise the system settings, press .

File Playback

Plays the recorded videos and photos.

Camera

Press to enter Camera mode.

Wireless LAN

Enables or disables wireless LAN.

Sound Recording

Sets if you want to include sounds in the recordings.

Parking Mode

- **Detection**: When enabled, the device will automatically enters the Parking mode when the car stops moving for about 5 minutes.
- **Detection Method**: Sets the parking detection method (triggered by the G sensor, motion detection or both).
- **Auto Entry**: Sets the mode (**Easy**, **Medium**, **Difficult** or **Manual**) for the system to enter the Parking mode automatically.
- **Motion Detection**: Sets the sensitivity level of motion detection that triggers the system to save the parking recording.
- **G-Sensor Sensitivity**: Sets the sensitivity level of the G sensor that triggers the system to save the parking recording.

Video Recording

- **Video Clip Length**: Sets the length of each video clip for a continuous recording.
- **WDR**: Enables the Wide Dynamic Range (WDR) function to improve the device's image quality under high-contrast lighting conditions.
- **EV**: Sets the exposure level to adjust the brightness of the image.
- **Frequency**: Sets the frequency for the camera to avoid problems caused by artificial light sources that are not constant.
- **G-Sensor Sensitivity**: Sets the sensitivity level of the G sensor that triggers the event recording during continuous recording.
- **Text stamp**: Displays customisable text information.

System

- **Date/Time**: Sets the system date and time.
- **System Sound**: Enables or disables system notification sounds.
- **Volume**: Adjusts the volume level.
- **LCD Standby**
  - **Always On**: Keeps the LCD on.
  - **HUD**: Turns off the LCD (in specified time) but still displays the time during recording.
  - **10 sec** / **1 min** / **3 min**: Sets the timer for the LCD to turn off automatically after recording starts.
- **Storage Allocation**: The system provides 3 memory configurations to store the videos and photos. Select the proper configuration based on your usage.
- **Restore to Defaults**: Restores the system settings to the factory defaults.
- **Version**: Displays the software information.

Format

Formats a memory card. (All data will be erased.)

Using the PC Application

KENWOOD ROUTE WATCHER II is a PC application for displaying video recorded with the device.

System Requirements for KENWOOD ROUTE WATCHER II

OS: Microsoft Windows 10, Windows 8.1, Windows 7*
(except for the Windows 10 Mobile, Windows RT)
* Windows 7 Service Pack 1 must be installed.

OS: Apple Mac OS X 10.11 (El Capitan) or later

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Macintosh, Mac are trademarks of Apple Inc., registered in the U.S. and other countries.

Installing the Software

Install the software in a computer environment in which you have administrator's rights.

1 **Download the installer from http://www.kenwood.com/cs/ce/**
2 **Install according to the on-screen instructions**

Specifications

Screen size
2.7inches color TFT
Operating voltage
DC 5.0V
Current Consumption
480mA (Max.1A)
G-sensor
Built-in
Collision sensitivity
0.5G to 3G (0.5G step)
Image sensor
1/2.7 Color CMOS sensor
Number of Pixel
2M Pixels (1920x1080)
Angles of view
Horizontal : 98°
Vertical : 52°
Diagonal : 114°
Lens
F2.0
Operating temperature
–10 °C to +60 °C
Recording resolution
1920 x 1080 Full HD (Max.2.0M)
Frame rate
30fps
Recording preservation timing
Continuous / Event / Parking
Recording Mode
1 / 3 / 5 min.
Video format
H.264 (MP4)
Picture format
JPEG (Max.1920 x 1080)
Recording media
microSDHC card 4GB to 32GB
Class 10 or above
USB Port
mini USB-B type
Dimensions WxHxD (Main unit)
84mm x 52mm x 31mm
Weight (Main unit)
74g
Accessories
Car charger cord (3.5 m) x 1
Mounting bracket (double-sided tape) x 1

The specifications and design are subject to change due to technological developments.

• The microSDHC logo is a trademark of SD-3C LLC.

Precautions and Notices

Precautions and Notices

- **Warning!** Do not operate the device while driving. Using this product does not change the requirement for a driver to take full responsibility for his or her behavior. This responsibility includes observing all traffic rules and regulations in order to avoid accidents, personal injury or property damage.
- For your own safety, do not operate the controls of the product while driving.
- A window mount is needed when using the recorder in a car. Make sure that you place the recorder in an appropriate place, so as not to obstruct the driver's view or deployment of airbags.
- Make sure that no object is blocking the camera lens and no reflective material is placed near the lens. Please keep the lens clean.
- If the car's windscreen is tinted with a coating, it may impact the recording quality.
- Connect the charger to a proper power source. The voltage requirements are found on the product case and/or packaging.
- Do not use the charger if the cord becomes damaged.
- Do not attempt to service the unit. There are no serviceable parts inside. Replace the unit if it is damaged or exposed to excess moisture.

Caring for Your Device

- Taking good care of your device will ensure trouble-free operation and reduce the risk of damage.
- Keep your device away from excessive moisture and extreme temperatures.
- Avoid exposing your device to direct sunlight or strong ultraviolet light for extended periods of time.
- Do not place anything on top of your device or drop objects on your device.
- Do not drop your device or subject it to severe shock.
- Do not subject your device to sudden and severe temperature changes. This could cause moisture condensation inside the unit, which could damage your device. In the event of moisture condensation, allow the device to dry out completely before use.
- The screen surface can easily be scratched. Avoid touching it with sharp objects. Nonadhesive generic screen protectors designed specifically for use on portable devices with LCD panels may be used to help protect the screen from minor scratches.
- Never clean your device with it powered on. Use a soft, lint-free cloth to wipe the screen and the exterior of your device.
- Do not use paper towels to clean the screen.
- Never attempt to disassemble, repair or make any modifications to your device. Disassembly, modification or any attempt at repair could cause damage to your device and even bodily injury or property damage and will void any warranty.
- Do not store or carry flammable liquids, gases or explosive materials in the same compartment as your device, its parts or accessories.
- To discourage theft, do not leave the device and accessories in plain view in an unattended vehicle.
- Overheating may damage the device.

Cleaning the Device

- When the device is dirty, wipe it with a dry silicone cloth or other soft cloth. If the device is very dirty, remove the dirt with a cloth with neutral cleaner on it and then wipe off the cleaner. Wiping the device with a hard cloth or using using a volatile substance such as thinner or alcohol may cause scratches, deformation, deterioration, or other damage.
- When the lens is dirty, gently wipe it with a soft cloth dampened with water. Rubbing the lens strongly with a dry cloth may cause scratches.

Precautions for Installation

- Install the device in a position where it will not block the front view of the driver (position where hidden by the rear-view mirror).
- Install the device so that it is within the wiping range of the wiper.
- Install the device in a position where it will not interfere with the movement of the rear-view mirror.
- Take care not to install the device over the vehicle inspection sticker or other sticker.
- Take care not to install the device where it will interfere with driving or airbag operation.
- When installing the device in a vehicle equipped with a driving support system, check the instruction manual of the vehicle and then select an installation location that will not interfere with the driving support system.
- If the device is installed incorrectly, event recording or parking recording may not work correctly. Refer to "How to Install" for the loosening of fixing knob, installation orientation, installation angle, and other information and then install the device correctly.
- Do not install the device near a digital terrestrial television antenna or an electrical component. Doing so may reduce television receiver sensitivity or cause flickering and noise.
- Use a commercially available cleaning cloth or the like to wipe off all dirt and grease on the mounting surface and then fix the mount base in place. If the device is re-affixed or mounted using, for example, general-purpose double-sided tape, the adhesion strength may weaken and cause the device to fall.
- After mounting the device, leave it for 24 hours before use to enable the mounting strength of the mount bracket to improve. Failing to do so may result in the adhesion of the mount bracket becoming weak and the device falling.
- Fix the cord in place with tape or the like so that it does not interfere with driving.

Precautions for Use

- Do not block the camera lens, get dirt on it, or place a reflective object near it.
- When LED traffic lights are recorded, video in which they appear to be flickering or flashing may be recorded. JVCKENWOOD assumes no responsibility with regard to the distinguishing or recording of traffic lights.
- If coating is used on the windshield of the vehicle, recording quality may be affected.
- There is no guarantee that the device can record video in all conditions.

Others

About software

This device includes the software owned by following third parties. Following condition of the license is applicable to each software.

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libupnp
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*/

If You Notice a Problem with the Device

Reset the device. Turn off the power by pressing the reset button on the back of the device with the tip of a thin paperclip. Press the power button once again to turn the device on again.

SD Cards

Cards supported by this device

Standard	microSDHC
Capacity	4 GB to 32 GB
Speed class	Class 10 or above
File system	FAT32

Precautions for Using SD cards

- When using a commercially available SD card, also check the instructions supplied with the SD card.
- Be sure to format (initialize) an SD card with the device before use.
- SD cards have a product lifespan, such as the number of times that writing can be performed. It is recommended to replace the SD card with a new one regularly depending on the usage conditions.
- When inserting and removing an SD card, confirm the orientation, do not bend it, and do not apply a strong force or impact to it.
- Do not directly touch the contact part with a hand or metal. The stored data may be damaged or lost due to static electricity.
- Be sure to back up (copy) the required files in the SD card to a PC or other device. The saved data may be lost due to the usage conditions of the SD card. Please note that JVCKENWOOD cannot compensate for any damages arising from the loss of saved files.
- Format the memory card periodically.
- Do not remove the memory card while recording or during playback because it may corrupt the data on the memory card.
- The device may not operate normally if you use an SD card that was used by another device, such as a computer or digital camera. Format the memory card in the device.
- Depending on the specifications of the memory card, the reading and writing speeds for the device's data may differ.

Complies with IDA Standards DB02771